INTRODUCTION

Salivary duct carcinoma is a rare, aggressive malignancy of the salivary glands, with many patients dying within the first year after presentation. Due to its rare nature, clinical data is limited, and there are only a few clinical studies that comprise more than 50 patients. We reviewed our institution’s experience with this disease over a 20-year period.

DESIGN AND METHODS

Design: Retrospective cohort study
Setting: Multi-hospital institution with tertiary care referral center
Methods: We reviewed our pathology database for all cases of pathologically diagnosed salivary duct carcinoma from January 1, 1995 through October 20, 2014. Patients who were outside pathology consultations and were never seen at our institution or one of its affiliates were excluded. We reviewed the electronic medical record for details regarding demographics, presentation, treatment, and outcome, including overall and disease free survival (OS and DFS). We supplemented this review with a review of our own Head and Neck Oncology Database for further clinical details.

RESULTS

- 75 total cases of pathologically diagnosed salivary duct carcinoma from January 1, 1995-October 20, 2014.
- Demographics, summary data, and survival info are noted in the graphs/tables.
- Three patients (4%) had distant metastasis at the time of presentation.
- 31 patients (41.3%) had pathologic features suggestive of carcinoma ex pleomorphic adenoma.
- Rates of pathologic features were: perineural invasion (PNI) 69.3%, extracapsular spread (ECS) 57.5%, Her2+ positivity 30.7% (62% of those who were tested), vascular invasion 61.3%.
- Median OS was 3.1 year and median DFS was 2.7 years.
- Notable significant variables on univariate survival analysis (OS and/or DFS):
  - Facial nerve sacrifice (main trunk or branch) at initial parotid surgery vs. those who had dissection without sacrifice
  - Extracapsular spread (ECS)
  - Perineural invasion (PNI)
  - Vascular invasion
  - T stage
  - No association with worse OS or DFS with Her2+ positivity
  - Significant decrease in OS with N2/3 stage disease
  - No patients had recurrence or distant metastasis after five disease-free years.

CONCLUSIONS

- Our study of 75 patients comprises the largest single-institution review to date.
- A surprisingly large number of our cases were ex pleomorphic adenoma and had classic negative prognostic indicators such as PNI, vascular invasion, and ECS.
- Her2, previously reported as a negative prognostic indicator, was not associated with any difference in survival.
- Multivariate analysis was performed and although underpowered, was nearly significant for worse disease-free survival and/or overall survival for several indicators, including vascular invasion, higher N stage, and facial nerve sacrifice.
- The need for facial nerve sacrifice (a surrogate for gross facial nerve involvement) may indicate a more aggressive cancer with significantly worse prognosis.
- Recurrence/metastasis after five disease-free years did not occur in our study and is likely rare.

REFERENCES